

NAME INDEX

A

Aberg, R., 95, 118
Adorno, T. W., 3, 24
Allison, P. D., 306
Alwin, D., 158, 160, 161, 180, 184, 189, 200, 212
Andersen, E. B., 117, 214*n*, 248
Andrich, D., 79, 87, 117
Arminger, G., 187-212

B

Babakol, O., 284, 308
Barnett, L. D., 77
Bavelas, A., 27, 46
Beardon, W. O., 121*n*, 155
Bellman, R., 290, 306
Belsley, D. A., 133, 155
Benth, M., 158
Bentler, P. M., 121, 126, 127, 128*n*, 129, 131, 146, 154, 155, 160, 171*n*, 184, 185
Berman, S., 306
Besanceney, P. H., 51, 77
Beyer, W. H., 130, 155
Bielby, W. T., 120-158
Birnbaum, A., 117
Bishop, Y. M., 184, 197, 211, 275, 280
Blau, P. M., 51, 77
Blum, T. C., 51, 77
Boas, R. P., 280
Bock, R. D., 17*n*, 24
Bohrstedt, G. W., 126*n*, 157
Boje, D. M., 27, 46
Bonacich, P., 27, 28, 29, 32*n*, 46
Bonett, D. G., 121, 126, 127, 128*n*, 129, 131, 146, 155
Bongaarts, J., 294, 306
Boomsma, A., 121*n*, 156
Borgatta, E. F., 81, 91, 118
Borjas, G., 253, 281
Bradburn, N. M., 3, 24
Braun, R. E., 296, 307
Brock, D., 306

Browne, M. W., 121*n*, 154, 156, 168, 184
Bunting, D., 29, 30*n*, 47

Burt, A. S., 28, 29, 32*n*, 45, 46, 47

C

Caldwell, S., 308
Campbell, D. T., 4, 24
Campbell, K. E., 28, 47
Carmines, E. G., 79, 118, 119
Carr, L. G., 4, 24
Carroll, G. R., 187, 192, 211
Chamberlain, G. D., 214, 214*n*, 218*n*, 224, 228*n*, 234, 248
Chen, H. T., 160, 180, 184
Christie, R., 3, 24
Cinlar, E., 286, 306
Cleary, T. A., 156
Clogg, C. C., 4, 24, 81, 82, 93*n*, 98, 117
Cochran, W. G., 82*n*, 118
Coleman, J. S., 45, 46, 187, 211, 229*n*, 235, 248, 252, 256, 280
Collins, M., 50, 59, 66, 71, 78
Cook, K. S., 27, 46
Cooley, C. H., 179, 194
Cox, D. R., 184, 214, 222, 248
Craig, A. T., 269, 281

D

Daniel, J. W., 165*n*, 186
Davis, K., 49, 66, 77
Delamater, J., 3, 24
Dempster, A. P., 93*n*, 118
De Pijper, W. M., 157
Dhrymes, P. J., 211
Diamond, I. D., 80, 118
Domowitz, I., 269, 280
Dorans, N. J., 193, 211
Doreian, P., 187, 211
Douglas, G., 231, 249
Drasgow, F., 193, 211
Duncan, O. D., 4, 24, 160, 161, 163, 163*n*, 184

E

Efron, B., 234
 Elder, G. H., Jr., 253, 280
 Emerson, R. M., 27, 46
 Espenshade, T. J., 296, 298, 302, 307
 Erikson, R., 95, 118
 Esser, H., 14n, 25
 Ethier, M., 48
 Ethington, C. A., 161, 186

F

Featherman, D. L., 161, 270, 281
 Fienberg, S. E., 184, 197, 211, 275, 280
 Fingrutz, M., 48
 Finney, J. M., 160, 184
 Fisher, F. M., 166, 184
 Fitzpatrick, J. P., 50, 77
 Flinn, C. J., 216, 249, 307
 Foner, A., 253, 282
 Formann, A. K., 93n, 118
 Fornell, C., 156
 Fox, J., 160, 161, 180, 181, 184
 Freeman, E. H., 160, 163, 166, 178n, 184, 185
 Freeman, J., 187, 211
 Freeman, L. C., 27, 28, 46
 Fuller, E. L., Jr., 121n, 156

G

Galaskiewicz, J., 27, 46
 Gantmacher, R. R., 46
 Geweke, J. F., 121n, 156
 Gillmore, M. R., 27, 46
 Ginsberg, R., 284, 286, 290, 307
 Glick, P. C., 51, 77
 Gnanadesikan, R., 193, 211
 Goldberg, J. D., 82n, 118
 Goldberger, A. S., 121, 156, 160, 185
 Goldstein, H., 25
 Goodman, L. A., 80, 81, 82, 93n, 100, 118
 Gordon, M. M., 49, 77
 Gordon, R. L., 79, 118
 Govindarajulu, A., 133, 156
 Graff, J., 160, 178n, 185
 Graham, A., 185
 Granovetter, M. S., 28, 47
 Granville, W. A., 77

Greene, V. L., 160, 180, 181, 185
 Greenville, T. N. E., 77
 Griffiths, W. E., 139, 142n, 155, 157
 Grizzle, J. E., 17n, 25
 Groeneveld, L. P., 235, 249, 285, 307, 308
 Gruvaeus, G. T., 123n, 156
 Gurak, D. T., 50, 77
 Guttman, L., 80, 82, 88, 118

H

Haberman, S. J., 17n, 25
 Haller, A. O., 163, 163n, 184, 185
 Hannan, M. T., 187, 187n, 192, 211, 212, 235, 249, 251, 252, 256, 282, 284, 285, 286, 290, 307, 308
 Hanushek, E. A., 163, 163n, 185
 Hareven, T. K., 251, 281
 Hauser, R. M., 121, 155, 160, 161, 180, 184, 270, 281,
 Have, J., 24
 Hays, D. G., 81, 91, 118
 Haynam, G. E., 133, 156
 Heckman, J. J., 214, 214n, 216, 231, 249, 253, 254, 281, 307
 Heer, D. M., 51, 77
 Heise, D. R., 160, 180, 185
 Hemmerle, W. J., 121n, 156
 Hennessey, J. C., 284, 307
 Henry, N. W., 81, 84, 92, 93n, 98, 99, 119
 Hill, R. C., 139, 142n, 155, 157
 Hinkley, D., 184
 Hoadley, B., 268, 281
 Hoelter, J. W., 130, 131, 131n, 155, 156
 Hoem, J. M., 284, 286, 296, 297, 302, 307
 Hogg, R. V., 269, 281
 Hogan, D. P., 270, 277, 281
 Holland, P. W., 184, 197, 211, 275, 280
 Hubbell, C. H., 28, 47
 Hummon, N. P., 187, 211

J

Jackman, M., 4, 25
 Jackson, D. N., 14n, 25, 163
 Jackson, J. E., 185
 Jensen, U. F., 296, 297, 307
 Johansson, S., 95, 118

Johnson, J., 253, 308
 Johnson, M. E., 282
 Johnson, R. A., 77
 Jordan, C. W., Jr., 77
 Jöreskog, K. G., 93n, 118, 121, 122,
 123n, 125, 126, 129, 130, 131, 135,
 149, 155, 156, 157, 160, 163, 171n,
 176n, 185, 188, 194, 195, 212
 Judge, G. D., 139, 142n, 155, 157

K

Kalaba, R. E., 290, 306
 Kalbfleisch, J. D., 223, 231n, 232, 249,
 251, 257, 281
 Kalton, G., 3, 25
 Kandel, D. B., 215, 236, 249
 Kao, E. P. C., 284, 307
 Kaplan, W., 263n, 270, 281
 Karant, R., 48
 Katz, L., 28, 47
 Kendall, M., 131, 133, 157
 Kluegal, J. R., 134, 156
 Knoke, D., 29, 45, 47
 Koch, C. G., 17n, 25
 Konda, S. L., 77, 78
 Krishnamoorthy, S., 296, 307
 Kshirsagar, A. M., 285, 306
 Kubitschek, W. N., 251, 281

L

Laird, N. M., 93n, 118
 Larcker, D. F., 156
 Larantz, K., 111n, 118
 Laumann, E. O., 27, 47
 Lawley, D. N., 121n, 157
 Lazarsfeld, P. F., 81, 82, 84, 92, 93n,
 99, 118
 Leavitt, H. S., 27, 47
 Lee, S. Y., 139, 142n, 155, 171n, 185
 Leone, C., 133, 156
 Lewis, C., 121, 158
 Lewis, P. A. W., 214, 248
 Lewis-Beck, M. S., 160, 185
 Linn, R. L., 156
 Lockett, J. A., 290, 306
 Longley, W. R., 77
 Lord, F., 157
 Lowe, J. C., 253, 282
 Luenberger, D. G., 185

M

McDonald, D., 48
 McDonald, J. W., 80, 118
 McDonald, R. P., 171, 185, 212
 McGaw, B., 157
 MacIver, J. P., 79, 119
 Maddala, G. S., 139, 157
 Mare, R. D., 251, 281
 Marini, M. M., 260, 281
 Mariolis, P., 26-48
 Marsden, P. V., 27, 28, 33, 45, 47
 Matsueda, R. L., 120-158
 Mead, G. H., 179, 185
 Meier, E. L., 270-281
 Menken, J., 284, 308
 Merton, R. K., 49, 66, 77
 Messick, S., 14n, 25
 Miller, I. W., 163, 185
 Minor, M. J., 28, 46
 Mintz, B., 27-47
 Mittelbach, F. G., 66, 77
 Mizruchi, M. S., 26-48
 Mode, C. J., 284, 285, 294, 308
 Modell, J., 251, 281
 Monahan, T. P., 50, 77
 Mooney, M. M., 212
 Moore, J. W., 66, 77, 253, 282
 Mosimann, J. E., 268, 269, 281
 Mulholland, R., 27, 28, 46
 Murguia, E., 78
 Muthén, B., 117, 119, 189, 212

N

Nelson, V. E., 50, 59, 66, 71, 78, 296,
 308
 Neugarten, B. L., 253, 282
 Neyman, J., 230n, 249
 Nielsen, F., 187, 192, 212
 Noble, B., 47, 165n, 186
 Norlen, U., 82, 91, 96, 97, 105, 119
 Novick, M. R., 157

O

Olsen, A. R., 212
 Olsson, U., 121n, 157, 193, 211, 212
 Orcutt, G., 308

P

Pappi, F. U., 27, 47
 Parkman, M. A., 51, 78
 Peabody, D., 3, 25
 Phillips, P. C., 212
 Pickens, G., 284, 285, 308
 Portes, A., 163, 163*n*, 184
 Prentice, R. L., 224, 231*n*, 232, 249, 251, 257, 281
 Presser, H., 3, 25
 Pressler, S., 25
 Proctor, C. H., 4, 25, 80, 81, 88, 95, 119

R

Ramachandran, P., 296, 308
 Rao, C. R., 197, 212, 268, 276, 282
 Rasch, G., 4, 25, 119
 Ratcliff, R. E., 48
 Reiser, M., 1-25
 Rees, M. B., 4, 24
 Richards, T., 249
 Riley, M. W., 253, 282
 Rodman, H., 50-78
 Roeder, D. C., 27, 28, 46
 Romney, A. K., 51, 78
 Rorer, L. G., 130, 157
 Rosenfeld, R. A., 187, 192, 212
 Rosenthal, N., 46, 48
 Rubin, D. B., 93*n*, 118, 212
 Rugg, D., 2, 25

S

Saris, W. E., 132*n*, 149, 157
 Satorra, A., 132*n*, 149, 157
 Sawyer, D. O., 81, 93*n*, 117
 Sawyer, J., 51, 78
 Schmidt, P., 160, 166, 178*n*, 185, 186
 Schoen, R., 49-78, 296, 308
 Schuessler, K., 1-25
 Schuman, H., 3-25
 Schwartz, J. E., 79-119
 Schwartz, M., 27-46, 51
 Scott, E. L., 230*n*, 249
 Seidenberg, B., 24
 Seigman, C. R., 24
 Selén, J., 82*n*, 115, 119
 Shah, I. H., 80, 118
 Shah, J. M., 296, 308

Silvey, S. D., 267, 282
 Singer, B., 212, 214, 216, 249, 254, 281
 Singleton, K. J., 121*n*, 156
 Smith, P. R., 77
 Sobel, M. E., 120, 126*n*, 157, 159-186, 197, 212
 Soong, T. T., 191, 191*n*, 212
 Sörbom, D., 93*n*, 118, 121, 122, 126, 131, 138, 149, 155, 157, 160, 163, 165, 171*n*, 176*n*, 185, 188, 194, 195, 212
 Sørensen, A. B., 187, 212
 Spilerman, S., 212
 Srole, L., 4, 25
 Stampel, D., 284, 308
 Starmer, F., 17*n*, 25
 Stewman, S., 77, 78
 Stolzenberg, R. M., 260, 282
 Stone, C. A., 183, 186
 Strauss, D. J., 51, 78
 Stryker, S., 179, 186
 Stuart, A., 131, 133, 157
 Subash, S., 121*n*, 155
 Summers, G. F., 158, 189, 200, 212
 Swanson, Z., 121*n*, 157

T

Teel, J. E., 121*n*, 155
 Teuter, K., 187, 211
 Theil, H., 168, 186
 Thompson, M. E., 284, 308
 Torgerson, W. S., 79, 81, 83, 119
 Trussell, J., 249, 284, 308
 Tsoung-chao, L., 157
 Tucker, L., 121, 158
 Tuma, N. B., 188, 188*n*, 192, 212, 214, 214*n*, 216, 218*n*, 222, 235*n*, 249, 251, 252, 253, 256, 282, 284, 285, 290, 307, 308

U

U. S. Bureau of Census, 78
 Useem, M., 48

V

Varian, H. R., 252, 282

W

Waite, L. J., 260, 282
Wald, A., 133, 158, 267, 282
Wallace, M., 1-25
Walster, G. W., 156
Weed, J. A., 296, 308
Weiss, E. N., 284, 294, 308
Wertheimer, R., 294, 308
Wheaton, B., 158, 189, 200, 200n, 201,
205, 212
Whetten, D. A., 27, 46
White, H., 268, 269, 280, 282
Widiger, T. A., 130, 157
Willekens, F. J., 296, 308
Winship, C., 250-282
Wohlwill, J. F., 251, 282
Wolf, D. A., 283-308

Wolfe, L. M., 161, 186
Woodrow, D. A., 46, 48
Wright, B. D., 231, 249
Wrightsman, L., 3, 25
Wymer, C. R., 197, 198, 212

Y

Yamagishi, T., 27, 46
Yamaguchi, K., 213-249, 282
Yates, G., 17n, 24

Z

Zachs, S., 212
Zegwaart, P., 157
Zeitlin, M., 48

SUBJECT INDEX

A

Age-graded behavior, 253
Alternative approaches to unobserved heterogeneity, 213-249
appendix: procedure of parameter estimation for FEML approach and, 247-248
comparison of alternative approaches and, 225-236; bias in estimate of negative duration and, 231; influence on covariate processes and, 228; limitations of fixed-effects approaches and, 229-236; limitations of random-effects approaches and, 225-229; renewal process and, 234; in table form 226-227
conclusion on, 246-247; random-effects approaches and sensitivity of parameter estimates in, 246; right approach for given application and, 246
data and applications for, 236-246
educational attainment as strong influence on timing of marriage and, 243; effects of marriage and age on stopping marijuana use and, 238-241; results and, 236-246; sample and data in, 236
overview of, 215-225; estimation and, 219-225; fixed-effects conditional-likelihood and, 220-223; fixed-effects marginal-likelihood and, 223-224; fixed-effects maximum likelihood and, 219-220; models and, 216-219; random-effects nonparametric maximum-likelihood and, 225; random-effects parametric maximum-likelihood and, 224
Ambition, power influences on, 164-167
Analyzing continuous-time event-history models, 283-308
appendix: derivation of marital-status transition intensities for, 302-306; estimated parameters of marital-status hazard functions and, 306; regression parameters: age-specific

first-marriage hazards incorporating trends in, 305
definitions and properties for, 286-289; calendar time and age in, 286; state space in, 287; transition intensities in, 289
discussion of, 301-302
illustration: marital-status dynamics and, 294-301; age in, 296; calendar period in, 296; counting function and, 290; duration of exposure in, 296; nonhierarchical model and, 295; renewal function and, 290; selected event-count distributions: alternative event-history simulations and, 300; selected transition-specific summary statistics and, 299; state probabilities and mean recurrence times: alternative event-history simulations and, 300; structure of marital-status dynamic model for, 295
implications of transition intensities for, 289-290
Monte Carlo solution for, 290-294; realizations in, 290; residual lifetime in, 293; sample trajectories for, 290; uncensored events in, 293
semi-Markov process definition and, 284; hazards or transition intensities for, 284
simulation approach for; hypothetical set of hazards and, 285; novel feature of, 285

C

Categorical data, reliability model for. *See* Reliability model for categorical data
Causal linkage and path analysis, 252
Centrality scores, disaggregating. *See* Disaggregating centrality scores
Class model, latent, 81
Continuous-time event-history models. *See* Analyzing continuous-time event-history models

Cosmopolitans, 38
 Counting function, 290
 Covariance models, indirect effects and their standard errors. *See* Indirect effects in covariance models
 Covariance structure models, 122-125; statistical power in. *See* Statistical power in covariance structure models
 Current-status data, reliability model for. *See* Reliability model for categorical data

D

Dichotomous social life feeling items, direction-of-wording effect and. *See* Direction of wording effect
 Direction-of-wording effects asymmetry (*c/b*) for 10 pairs in, 15 cell percentages for fourfold tables based on matched items in, 13 comparisons between unmatched negative and positive terms in, 5-10 concluding remarks on, 23-24 in dichotomous social life feeling items, 1-25 general discussion of, 20-23 log-linear analysis of six-way breakdown in, 16-20 marginal and cell frequencies for paired items in, 12; matched items in, 10-20 mean score per item by direction of wording and respondent characteristic for, 8 mean score per item and inter-item correlation by direction of wording and topic for, 7 ML contrast estimates for, 18 ML estimates of asymmetry, imbalance, and association for, 20 related studies in, 2-5; Adorno's F-scale and, 3; changing form of question and, 3; forced-choice question and, 3; questions which misrepresent public opinion in poll responses and, 2; relation of response pattern to question wording in, 2 tally of 0.01 effects by respondent characteristics and contrast in, 21

ten pairs of statements: mean ratings and standard deviations for, 11 Disaggregating centrality scores background on, 27 centrality as crucial concept in sociology and, 27 centrality scores and, 27-30; assumptions of Bonacich's derivation and, 30; calculation of, 28; as measure capable of accounting for symmetric and asymmetric relations in, 29-30; as product of several factors, 27-28 changes in centrality over time and, 39-45; definitions for, 41; notation for, 39; sources of change in centrality: unit 7 and, 44; sources of change in centrality: unit 10 and, 44; ten-unit network at time 1 and, 42; ten-unit network at time 2 and, 42 conclusion on, 45 derived and reflected centrality in, 32-39; centrality scores for network and, 35; centrality scores for network in second figure and, 37; concepts based on, 38; cosmopolitans and, 38; eleven-unit network and, 36; peripherals and, 39; pure bridges and, 38; pure hubs and, 38; ten-unit network and, 34 hubs and bridges in, 30-32; distinguishing between two inertia configurations and, 31; operationalization of, 31; partitioning unit's centrality and, 30-31 operationalization of centrality in, 30n; in social networks, techniques for, 26-48

E

Educational attainment as influence on timing of marriage, 243 Event-history models, analyzing continuous time. *See* Analyzing continuous-time event-history models

F

Fixed effects; conditional-likelihood, 220-223; marginal-likelihood, 223-224 maximum likelihood, 219-220

G

Guttman scales, reliability model for categorical data applied to. *See* Reliability model for categorical data
 Guttman scaling method, 82-83

H

Hazard models, 102
 Heterogeneity and interdependence
 age-determined behavior versus process of maturation in, 253
 age-graded behavior and, 253
 appendix: observed X's and, 279-280
 causal linkage and path analysis in, 252
 causal or structural relation between transitions and, 251; example of distinction between two explanations and, 251
 conclusions on, 278
 empirical analysis for, 270-278; data and, 270; descriptive analysis and, 270-274; descriptive analysis: observed distribution of nonblacks over 30 years of age, 270; marital hazard and, 271; observed divided by expected frequencies and, 276; Wald test and, 274-278
 life course, definition of in, 250
 model identification and; example with additive heterogeneity and, 261
 model specification for, 254-259; graph of hazard for marriage for hypothetical individual and, 256; hazard rates and functions in, 254-255; heterogeneity and, 257-259; interdependence and, 255-257; specification and, 259-266; specification: additive hazards and, 263-266; specification: example of, 260-262; specification: unrestricted case of, 262
 testing for quasi-symmetry and, 266-269; estimation and, 266; Wald test and, 268-269
 test using survival models and, 250-282
 Heterogeneity, unobserved, alternative approaches to. *See* Alternative approaches to unobserved heterogeneity

Hypothesis testing, 125-130
 Hypothetical set of hazards, 285

I

Incremental fit, 125-130
 Indirect effects in covariance structure models, 159-186
 appendix to, 183-184
 limiting distribution of total indirect effects and, 167-172; example one in, 172-174; example two in, 174-180
 specific indirect effects in, 180-182
 summary on, 183
 total effects and total indirect effects
 defined in, 160-167; path diagram for model of peer influences on ambition and, 164-167; path diagram for recursive model of socioeconomic achievement and, 162
 Instantaneous transition rates, 289
 Interdependence and heterogeneity: test using survival models. *See* Heterogeneity and interdependence
 Intergroup marriage: methodological analysis, 49-78
 analyzing effects of composition on intermarriage and, 67-72; comparison of observed 1970 indexes of intermarriage with 1960, 1980, and, 71; compositional effects in case of California and, 69-72; in ETHNUP populations, 67-72; variations in marriage behavior from changes in ethnic composition, 70; variation in proportion out-marrying produced by changes in ethnic composition, 68
 estimating intermarriage index Z and, 72-75; two alternative forms of approximate intermarriage index Z and, 74
 intermarriage in sociological literature and, 50
 measuring intermarriage in, 50-58; calculations of ETHNUP table and, 58; importance of group size and, 51; life-table and, 57; magnitude of marriage attraction and, 52; most common method of, 50-51
 among Spanish surnamed Californians and, 59-67; basic ETHNUP for California in 1970 and, 62; com-

parison of alternative indexes of intermarriage and, 65; data and methods for, 59-60; marriages during age interval and, 63; results of, 60-67; summary cohort marriage measures from ETHNUP tables and, 64
summary and conclusions on, 75-77

L

Latent; class model, 81; structure models, 98

Life course definition, 250

Linear stochastic differential equation models

appendix: derivation of covariance matrix of parameter matrices in, 209-211

asymptotic covariance matrices of \hat{A} and \hat{B} in, 197-200; estimation of asymptotic covariance matrix of \hat{A} and, 197

definition of model for, 189-193

from dynamic point of view, 188

examples: attitudinal changes over time and 200-209; comparison of these estimates to Wheaton and colleagues and, 205; correlation matrix for data of Wheaton and colleagues in, 202; covariance matrix of \hat{B}^* and $\hat{\gamma}^*$ in, 205; graph of LISREL model and, 203; problems with Wheaton and colleagues analyses and, 201

increasing popularity of differential equation models and, 188

ML estimation of \hat{A} and \hat{B} in, 193; three advantages of normality assumption and, 193

for panel data with unobserved variables, 187-212

summary on, 209

two fundamental deficiencies of current applications of differential equations and, 188-189

M

Marriage, intergroup, methodological analysis of. *See* Intergroup marriage: methodological analysis

Methodological analysis of intergroup marriage. *See* Intergroup marriage:

methodological analysis
Modeling distributions of latent class, 101-104
Monte Carlo solution, 293
Multiple groups, analyzing, 104-116; indicator model, 134

N

Noncentral distribution, 131-133

Nonhierarchical state, 293

Null models, 125-130

P

Panel data with unobserved variables, linear stochastic differential equation models. *See* Linear stochastic differential equation models

Peripherals, 39

Power; influences on ambition, 164-167; statistical, in covariance structure models. *See* Statistical power in covariance structure models

Pure; bridges, 38; hubs, 38

Q

Quasi-symmetry, testing for, 266-269

R

Random-effects parametric maximum-likelihood, 224

Realizations, 290

Recursive model of socioeconomic achievement, 162

Reliability, 135-137

Reliability model for categorical data, 79-119

alternative strategy for incorporating violations into scaling method and, 80-81

analyzing multiple groups and, 104-116; design matrix for parameterizing subgroups in, 109; raw data for "mistreatment by tax authorities" items by subgroup and, 105-106
conclusion on, 116-117

estimation and, 93-95

example 1: mistreatment by tax authorities-aggregate analysis and, 95-101; assigning persons to posi-

tions and, 98–101; distribution of latent class by several parameters and, 98; summary results for fit of various latent structure models on, 96

example 2: mistreatment by tax authorities by subgroup and, 110–116; coefficients for and functions in, 112; differences among groups in, 115; estimated probabilities of each type of misclassification error and, 114

general measurement error model for Guttman scales and, 83–87; hypothetical trace line for second-ordered item of three-item Guttman scale and, 86; probability of positive response to individual items by position and, 84

identification issue and, 88

latent class model and, 81

modeling distribution of latent class and, 101–104; illustration of distributional differences among three "stable" hazard models and, 102

review of Guttman scaling model and, 82–83

structure of misclassification error rates and, 89–93; matrix for reparameterization of \emptyset -parameters and, 90

theory of Guttman scales and, 80

Renewal function, 290

Repeatable events, alternative approaches to unobserved heterogeneity in analysis of. *See* Alternative approaches to unobserved heterogeneity

S

Sample trajectories, 290

Simulation methods for analyzing continuous-time event-history models. *See* Analyzing continuous-time event-history models

Social networks, disaggregating centrality scores in. *See* Disaggregating centrality scores

Soujourn times, 284

Statistical power in covariance structure models, 120–158

advances in covariance structure analysis and, 121

application to overall goodness-of-fit and, 145–153; increasing sample size to 900 in, 151; three parameterization of departures from model with uncorrelated errors and, 147

conclusions on, 153–155

covariance structure models in, 122–125

model fitting and hypothesis testing: alternative strategies and, 125–131; approximate noncentral distribution for likelihood-ratio χ^2 statistic in, 131–133; critical sample size in, 130–131; null models, incremental fit, and hypothesis testing in, 125–130; power function of noncentral χ^2 distribution by type I error rate and, 132

power, sample size and parametric structure in, 133–145; multiple-indicator model and, 134; noncentrality parameter as function of exogenous indicator reliability and, 137; noncentrality parameter as function of endogenous indicator reliability and, 137; number of indicators of endogenous latent variable and, 137–143; number of indicators at exogenous latent variables and, 143–145; reliability and, 135–137

Survival models, test using: heterogeneity and interdependence. *See* Heterogeneity and interdependence

T

Trajectories, sample, 290

Transition(s); causal or structural relation between transitions, 251; intensities, 289

U

Unobserved heterogeneity, alternative approaches to. *See* Alternative approaches to unobserved heterogeneity

variables, panel data with, linear stochastic differential equation models. *See* Linear stochastic differential equation models

W

Wald test, 268–269

